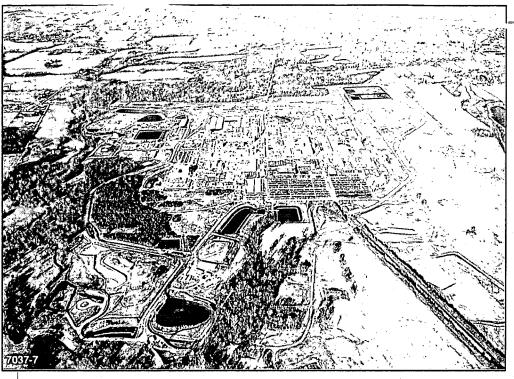
Fernald 3271 Cleanup Overview



When the Atomic Energy Commission, predecessor to the Department of Energy (DOE), broke ground at Fernald in 1951, winning the Cold War was a national priority. For nearly 37 years, Fernald produced feed materials to support the National Defense Program. With the end of the Cold War and the subsequent scaling back of military spending, Fernald suspended uranium metal production in 1989 to become the first DOE site to focus exclusively on cleanup. In 1992, Fluor Daniel Fernald assumed responsibility for managing cleanup activities under a contract with DOE.

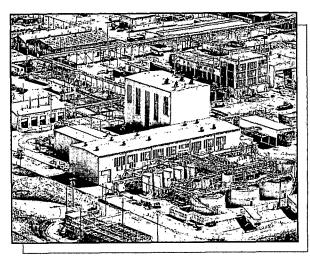
Cleanup Mission

In 1989, the U.S. Environmental Protection Agency (EPA) added Fernald to its National Priorities List of federal facilities most in need of cleanup. Today, after completing a lengthy study phase to determine the nature and extent of environmental contamination, Fernald is on track to complete final cleanup at an accelerated pace. DOE and Fluor Daniel Fernald worked closely with regulators and stakeholders to develop a strategy to accelerate cleanup. This strategy reduces the original cleanup schedule by approximately 10 to 15 years and will save taxpayers an estimated \$3 billion over the life of the project. The health and safety of workers and the public and protection of the environment remain Fernald's highest priorities.

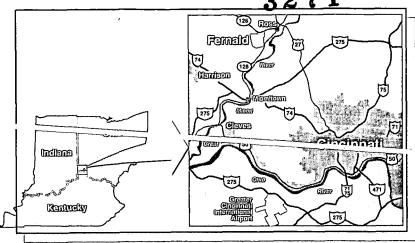
Major Projects

Fernald's major cleanup projects include:

- Aguifer Restoration/Wastewater Project
- Decontamination and Dismantiement Projects
- On-Site Disposal Facility Project
- Silos Project
- Soil Characterization and Excavation Project
- Waste Pits Remedial Action Project
- Waste Management



The AWWT's design treatment capacity is 2,900 gallons-per-minute (6901-90).



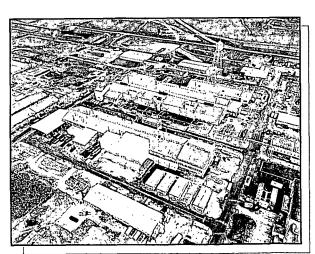
The 1,050 acre Fernald site is located approximately 18 miles northwest of Cincinnati, Ohio (Graphic 4862).

Aquifer Restoration/ Wastewater Project

Operation of the Advanced Wastewater Treatment (AWWT) Facility began in 1995. The facility treats contaminated storm water and wastewater from Fernald, as well as a small portion of the Great Miami Aquifer that became contaminated with uranium from site operations. A recent expansion of the AWWT provides an additional groundwater treatment capacity of 1,800 gallons-per-minute (gpm), increasing the overall wastewater treatment design capacity to 2,900 gpm. A strategy was developed to re-inject treated water back into the aquifer to help push the uranium contamination to pumping wells. If successful, this innovative technology could trim an estimated 15 years off the original schedule.

Decontamination and Dismantlement Projects

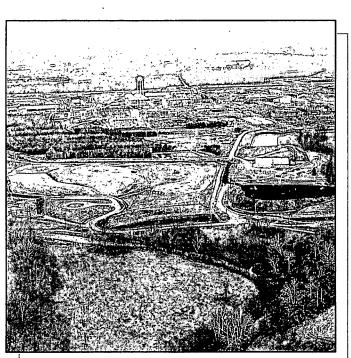
In March 1999, Fernald completed Safe Shutdown of all former production facilities which involved the removal of large quantities of process materials left inside buildings and equipment. This provides a safer work environment for demolition crews and eliminates a potential environmental hazard. Fernald's regulators and stakeholders identified the Safe Shutdown Project as one of the site's highest cleanup priorities. The project was completed two years ahead of schedule and \$7 million under budget.



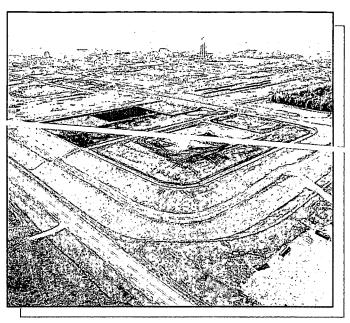
By mid October 1999, Fernald dismantled 66 of the 200 former production facilities (7021-68).

On-Site Disposal Facility

Construction of the On-Site Disposal Facility (OSDF) began in June 1997. The OSDF is designed to hold 2.5 million cubic yards of soil and debris. Approximately 85 percent of the material destined for the OSDF will be soil and the remaining 15 percent will be debits from the demolition of Fernald's former production buildings. When complete, the disposal facility will be approximately 800 feet wide, 3,700 feet long, and 65 feet high. Construction is proceeding in phases, with eight waste cells planned. A five-foot thick liner and 8.75-foot thick cap will be constructed of natural materials (clay and gravel) and man-made materials (plastic liners). The OSDF contains a leak detection system and a leachate conveyance system. Impacted material was placed in Cell 1 in December 1997 and in Cell 2 in November 1998.



Fernald will excavate over 1.8 million cubic yards of contaminated soil (7021-23).



The OSDF is designed to hold 2.5 million cubic yards of soil and debris (7021-14).

Soil Characterization and Excavation Project

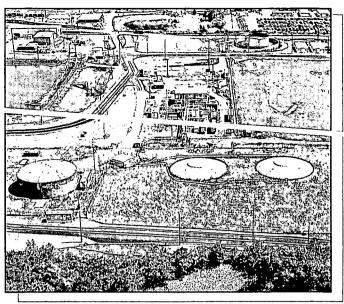
The focus of this project is to excavate over 1.8 million cubic yards of contaminated soil and certify that the remaining soil on site meets cleanup levels. Over 200 acres have been certified as of July 1999. Excavated soil and debris will be transported and dispositioned in the OSDF or at an off-site disposal facility. The site has been divided into ten soil remediation areas to better manage the sequence of cleanup.

Since remediation began in 1997 at the Southern Waste Units, 183,000 cubic yards or 219,600 tons of contaminated flyash and soil have been excavated. Approximately 150,000 cubic yards or 180,000 tons still need to be excavated before remediation of the Southern Waste Units is completed in 2000.

In April 1998, the Natural Resource Trustees negotiated a tentative settlement to resolve DOE liability for natural resource injuries under Section 107 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). In doing so, a path forward was established for natural resource restoration of the Fernald site. The settlement proposes restoration of 884 acres of the 1,050 acre site, excluding the 123 acres occupied by the OSDF and a 23-acre parcel of land being evaluated for potential commercial development. Proposed restored habitat types include upland forests, riparian forests, tall-grass prairie/savanna, wetlands and open water.

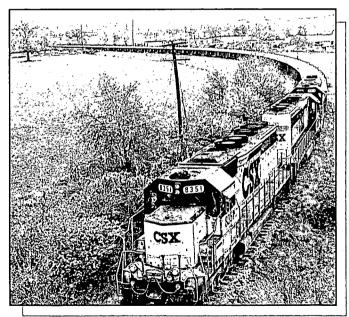
Silos Project

The Silos Project is located on the western periphery of the site and includes four silos and nearby structures. Silos 1 and 2 (also called the K-65 Silos) contain lowlevel rudioactive wastes dating back to the 1950s. In 1964, Silos 1 and 2 were reinforced with an earliest berm that was upgraded in 1983. To accelerate waste retrieval from Silos 1 and 2, Fluor Daniel Fernald awarded a four-year, \$50.6 million contract in February 1999 to Foster Wheeler Environmental to remove the waste from Silos 1 and 2, transfer the waste to temporary storage, and design and construct a radon control system. The path forward for ultimate treatment and full-scale remediation of Silos 1 and 2 waste is currently being reevaluated with stakeholders and regulators, with a Revised Feasibility Study/Proposed Plan scheduled for issuance to regulators in February 2000.



Regulators and stakeholders will help Fernald determine the final treatment technology for Silos 1 & 2 (7213-141).

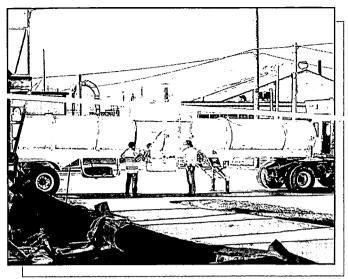
Silo 3 contains cold metal oxide and Silo 4 is empty. Current project activities center on the accelerated remediation of Silo 3. A four-year, \$17 million contract for treatment of Silo 3 material was awarded to Rocky Mountain Remediation Services in December 1998 to safely remove the waste, design and construct a treatment facility, and process the waste. Fernald will transport the treated waste to an off-site disposal facility.



Fernald will transport approximately 100 trains of waste to Envirocare through 2004 (6944D-794)

Waste Pits Remedial Action Project

This project involves the cleanup of approximately 1 million tons of waste contaminated with uranium, thorium and other contaminants stored in six waste pits, a burn pit and a clearwell at Fernald. The pits range in size from one to five acres and vary in depth from 10 to 40 feet. In 1997, Fluor Daniel Fernald awarded International Technology (IT) Corp. an eight-year, \$122 million contract to excavate the waste pits and surrounding contaminated soil, treat the waste, if necessary, and load the waste into railcars for shipment. Fluor Daniel Fernald then transports the waste by rail to Envirocare of Utah, the commercial disposal facility. Fernald transported the first rail shipment of waste to Envirocare in April 1999. Excavation and rail operations will continue through 2004.



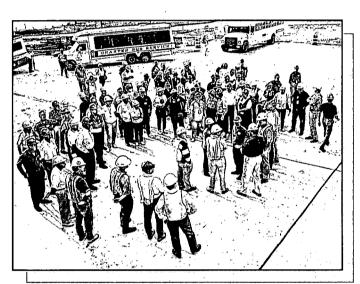
Liquid mixed waste is transferred to the Toxic Substance Control Act Incinerator, Oak Ridge, Tenn., for treatment (6898-D37).

Waste Management Project

The Waste Management Program involves characterization, sampling and disposal of low-level waste, treatment of mixed waste, waste minimization and recycling initiatives, and the disposition of nuclear material. DOE and Fluor Daniel Fernand have adopted a site-wide remedial strategy to ship smaller volumes of higher-contaminated waste off site for disposal while disposing of larger volumes of less-contaminated waste in the OSDF. This balanced approach also includes the recycling and beneficial reuse of material and uranium metal products, when feasible.

Public Involvement

The long-term success of Fernald cleanup will depend on the support of many groups, including site management, team members, labor unions, regulators, subcontractors and concerned citizens. DOE and Fluor Daniel Fernald welcome public participation to work through cleanup challenges and find better solutions. Fernald holds monthly Cleanup Progress Briefings to update citizens on cleanup plans and progress. The briefings provide opportunities for decision makers to interact directly with the public.



Hundreds of people tour Fernald each year to observe cleanup progress (6810D-206).

For More Information...

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